

CLAIMS

1 1. A face-mounted apparatus having spectacles and a video display integrated into
2 the spectacles, the apparatus comprising:

3 an image-producing source; and

4 a virtual image diffuser having a display, a mirror, and a terminal lens, the virtual image
5 diffuser being attached to a facial mounting and displaying virtual images from the image-
6 producing source,

7 wherein the virtual image diffuser is positioned on the facial mounting away from a main
8 line of sight of a user, the virtual image diffuser directing a biased diffusion towards the user's
9 pupil of virtual images projected by the terminal lens.

1 2. The apparatus of claim 1, wherein the display, the mirror, and the terminal lens
2 are together carried by a chassis attached to a mounting such that the mounting is equipped with
3 a mechanism for adjusting the position of the image projected towards the user's pupil, starting
4 from a displacement of the virtual image diffuser.

1 3. The apparatus of claim 2, wherein the chassis is arranged in an envelope inside
2 which the display, the mirror, and the terminal lens are attached, such that the chassis is arranged
3 in a dark chamber inside which the virtual image diffuser are assembled in proximity to one
4 another.

1 4. The apparatus of claim 3, wherein the dark chamber is composed of two half-
2 shells joined together by interlocking, and which accommodate between them the display,
3 mirror, and terminal lens.

1 5. The apparatus of claim 1, wherein the virtual image diffuser is oriented between
2 29.7° and 41.7° laterally off of the main line of sight.

1 6. The apparatus of claim 1, wherein the virtual image diffuser is oriented between
2 1° and 19° laterally off of the main line of sight and in a lower half of the facial mounting.

1 7. The apparatus of claim 1, wherein the terminal lens is equipped with a mechanism
2 for adjusting its focal length.

1 8. The apparatus of claim 1, further comprising a support unit arranged in a case of
2 two half-shells joined together by interlocking to envelope the virtual image diffuser.

1 9. The apparatus of claim 1, further comprising a audio connector which receives
2 audio from a control unit.

1 10. The apparatus of claim 1, further comprising a control unit including a power
2 source.

1 11. The apparatus of claim 2, wherein the mechanism for adjusting the position of the
2 image projected towards the user's pupil includes a knob.

1 12. The apparatus of claim 2, wherein mechanism for adjusting the position of the
2 image projected towards the user's pupil comprises pre-defined notches in the chassis.